

The present invention relates to a rapid high-throughput ion-exchange resin assay for determining enzyme activity. This novel assay uses a radiometric technique which separates the radioactive substrate from the product (or the radioactive product 5 from the substrate) by exploiting the differences in the net charges of the molecules using ion-exchange resin. This assay is useful, for example, for studies of enzyme kinetics, the identification of functional sites in the enzyme, and in the automated screening of compound libraries for pharmaceutical drug development.